REMARKS

Applicant has cancelled claims 3, 7 and 8 and amended claims 2, 4, 5 and 6. Claims 1-2, 4-6 and 9 remain in the application. All remaining claims were rejected as obvious over Kautz 5,950,811 in view of Poling 4,920,240 and Atkinson 5,001,317.

Claim 1 describes a snap action switch with an actuator blade such as of the type shown in applicant's Fig. 4 (at 54) where an actuation location (e.g. a rivet 80 mounted at 70) can be depressed to snap a middle contact (40) upward. Fig. 7 shows a rivet upper face (104) and shows the middle contact (at 40) pressing down against a lower contact (44). When the rivet upper face is depressed to a first snap height (110), the middle contact snaps up against upper contact (42). When the rivet top is then allowed to rise above a second snap height (112), the middle contact (at 40A) snaps down against lower contact 44. Applicant has not claimed the above as novel.

In the prior art it was generally thought that the heights (e.g. 110 and 112 in Fig. 4) of the actuation location at which the middle contact snaps up and down, respectively, was due solely to the construction and height of the actuator blade (54). To adjust the height at which there is downward snapping, the height of the entire snap action switch (12 in Fig. 2) relative to an operator tripping end (34) can be adjusted. However, this also affects the height at which there is upward snapping.

An inventive feature of claim 1 is that in this type of double snap action switch, we can precisely change the snapping height in one direction (without significantly changing the snapping height in the opposite direction) by precisely adjusting the height of one of the nonsnap (fixed) contacts. In Fig. 5 we show an adjustment screw (136) that can be turned to raise or lower the upper contact (42). This changes the height (112 in Fig. 7) for downward snapping.

Kautz shows a snap action switch with a middle contact (24 in his Fig. 1) that snaps up and down against upper and lower nonsnap contacts 18, 25, but without means for adjustment.

Poling shows, in his Fig. 3, an ordinary (nonsnap) switch in which a contact 157 lies on a resilient conductive beam that is surrounded by a leaf spring 49. The leaf spring is biased to hold the contact 157 against a stationary contact 167. However, when a pivoting element 53 pivots, its flange 153 pushes the leaf spring 49 to push the contact 157 into engagement with another stationary contact 165.

Poling shows two pins 177, 179 that are "press fitted" (col. 12, lines 24-25) into holes and that determine the positions of the stationary contacts 167, 165. This merely determines how far his moveable contact 157 must move to engage contact 167 or 165. His switch is not relevant to a snap action switch where the particular snap height, at which the moveable contact suddenly snaps and keeps moving until stopped, is determined by the position of an opposite stationary contact. Also, the press fit of _Poling_'s pins are not a "means for varying height" which is a device for easily and precisely varying height such as a screw operated adjuster. A press fit pin cannot be easily and precisely moved. Accordingly, applicant believes that claim 1 is not anticipated by _Kautz_ in view of _Poling_.

Atkinson 5,001,317 shows a snap action device 11 (his Fig. 2) with a contact 18 that snaps up and down against contacts 19, 21, but without adjustment of his contacts 19, 21. His adjustment members 29 adjust pressure on a diaphragm 9 or 10 rather than the height of a nonsnap contact 19 or 21.

Claim 2, which depends from claim 1 and which has been amended, describes a construction such as shown in applicant's Fig. 5 where a screw (136) that can be turned moves a free end (138) of a cantilevered beam (130) to adjust the height of an upper contact (42) on the beam. In _Poling_ his pins 177, 179 are _press fitted_ into his housing wall so they are not adjustable any

more than forcefully bending his housing.

Claim 4, which has been amended, is somewhat similar to claim 1 in describing a snap action switch with upper and lower unsnap contacts (e.g. 42, 44 in applicant's Fig. 7) and with a middle contact (40) that snaps up and down. Claim 4 describes means for adjusting the height of the upper contact. In a snap action switch, this changes the height of the upper snap height (112) at which the middle contact (40) snaps down after having first been snapped up. Poling's fixed (press fitted) pins 177, 179 that are used in a non-snapping switch are not relevant to adjusting the height of a contact and doing it in a snapping switch.

Claim 5, which depends from claim 4 and which is somewhat similar to claim 2, describes a screw (e.g. 136 in Fig. 8) for pressing down a beam (130) on which the upper contact is mounted. In Poling, his pins 177, 179 are fixed in place.

Claim 6, which depends from claim 4, describes a construction such as shown in applicant's Fig. 2. A membrane (16) applies forces to the operator (20) to move it down and move down an actuator location (at 34). When the operator thereafter moves up beyond an upper actuation height (112 in Fig. 7) the middle contact (40) snaps down. The claim describes the means for adjusting as serving to adjust the height of the upper contact (42) which adjusts the upper actuation height (112). Poling's fixed pins 177, 179 do not allow adjustment of snapping height.

Claim 9 describes a method for use with a snap action switch arrangement with a trigger leg (64 in Fig. 4) having a middle snap contact (40). As shown in Fig. 7 the middle contact can snap from a down position (40) to an up position (40A) when an actuator location (104) is moved down below a first snap height (110). Also, the middle contact snaps down again when the actuation location rises beyond a second snap height (112). The method is to adjust the height (e.g. from 42 to 42A) of the upper contact to adjust the second

snap height (112).

Kautz shows a snap action switch without discussing how the return snap height of the actuator can be adjusted. Poling shows the position of a contact 165 (his Fig. 3) fixed by a press fit pin 177. Poling does not suggest how to change the return snap height of a trigger leg of a snap action switch. Atkinson shows (Fig. 2) a switch with a contact 18 that moves against upper and lower contacts 19, 21 whose heights are not adjustable. The references together do not suggest adjusting the height of an upper contact (42 in applicant's Fig. 7) to adjust the height (112) at which a middle contact (40) snaps down.

In view of the above, favorable reconsideration of the application is courteously requested. If the Examiner should wish to discuss the application, then the Examiner is invited to call Leon D. Rosen at (310) 477-0578.

Respectfully submitted,

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